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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,647	05/25/2007	Marinus Theodorus Gidding	067670-5012-US	1520

67374 7590 07/07/2011  
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EXAMINER
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FELTON, MICHAEL J

ART UNIT	PAPER NUMBER
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1747

MAIL DATE	DELIVERY MODE
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07/07/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,647	<b>Applicant(s)</b> GIDDING, MARINUS THEODORUS	
	<b>Examiner</b> MICHAEL J. FELTON	<b>Art Unit</b> 1747	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,7-15,18-22,24-50 and 52-75 is/are pending in the application.  
4a) Of the above claim(s) 42-50 and 67-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,7-15,18-22,24-41,52 and 54-66 is/are rejected.
- 7) ☒ Claim(s) 53 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claims 67-75 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The method claimed is similar to the non-elected method that is currently withdrawn (claims 42-50). In addition, the method of 67-75 would have been distinct because it represents a separate search and the method can be performed by two distinct products (the device of 54 or the device of 60).

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 67-75 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Response to Arguments***

2. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

3. Claim 22 is objected to because of the following informalities: the numbering of the claims on which claim 22 is dependent appears to be awkward. The examiner

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suggests changing the claim to read, "Device as claimed in claims 1, 7, 8, 9, 10, 18, 19, 20, or 21...". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims **27, 55, and 65** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding claim **55**, the term "small" in claim 55 is a relative term which renders the claim indefinite. The term "small" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The dimensions of a "small mesh width" are unclear.

7. Regarding claim **27 and 65**, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by

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such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 27 and 65 recite the broad recitation a maximum of 1 kg, and the claim also recites a maximum of 300 g which is the narrower statement of the range/limitation.

### ***Claim Rejections - 35 USC § 102***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims **1, 7-15, 18, 20-22, 24-26, 29, 30, 33, 34, 38, and 39** are rejected under 35 U.S.C. 102(b) as being anticipated by Shafer (US 5,388,595).

10. Regarding claims **1, 18, 52**, Shafer discloses a tobacco reservoir (figure 10, element 16), an outside air feed (see figure 10, "Air In"), a tobacco smoke discharge (element 52), a filter connected to the smoke discharge (element 58) and a mouthpiece connected to the tobacco reservoir and smoke discharge. A fan (element 70) is capable of forcing smoke through the smoke discharge (i.e. forced gas flow). And the smoke discharge comprises a first discharge channel capable of discharging tobacco smoke in a stand by situation (i.e. side stream smoke; element 44) and a second discharge channel capable of discharging tobacco smoke exhaled (the channel which contains valve 82 and 90). Shafer discloses a fan within a channel (element 70), which is considered to be located where the first and second discharge channels are combined

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to form a single smoke discharge channel and the fan is arranged in the combined smoke discharge channel (which is inherently also the first smoke discharge channel; see also instant claims 18 and 52).

11. Regarding claim **7**, the fan of Shafer is driven by an electric drive (i.e. motor) and has an electric power source and batteries (col. 2, line 45--col. 3, 16).

12. Regarding claim **8 and 9**, Shafer discloses a the 4 port check valve (i.e. non-return valve that also contains solenoid valves in between the tobacco reservoir and smoke discharge (86), the tobacco reservoir and the mouthpiece (82) and the mouthpiece and the smoke discharge (88), all of which regulate the gas flows through the smoke discharge and the mouthpiece.

13. Regarding claims **10, 11, 12, 14, and 15**, the valve arrangement of Shafer allows any flow to be created depending on the orientation of the check valve and the activation of a corresponding solenoid.

14. Regarding claim **13**, the valves of Shafer have a closing membrane (i.e. valve) that is capable of allowing throughfeed in one direction and blocking throughfeed in another direction (col. 7, 9-32; col. 9, 16-62).

15. Regarding claim **20**, the tobacco reservoir contains a removable cover (fig. 1, element 36) and a one way valve (38) with a number of openings provided in the housing provide an outside air feed.

16. Regarding claim **21**, Shafer has a lighting system within the tobacco reservoir and air supplied via the valve (38) enables lighting of the tobacco.

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17. Regarding claim **22**, the pressure caused by the fan during operation of the system of Shafer is capable of being lower than the pressure caused by inhalation by the user because inhalation by the user is inherently variable and follows an curve of pressure swings between inhalation and exhalation.

18. Regarding claim **24**, Shafer discloses a cigarette holder (figure 10, element 42 holder, and cigarette, element 20).

19. Regarding claim **25**, although Shafer does not expressly disclose rolling tobacco is used, Shafer disclose that either machine or hand rolled cigarettes can be used in the device (col. 8, 37-38). Hand rolled cigarettes inherently contain rolling tobacco.

20. Regarding claim **26**, although not expressly disclose by Shafer, the device is inherently capable of being held by the mouth of a person.

21. Regarding claim **29**, Shafer discloses a integrated lighter which is held in a compartment (figure 10, element 24; element 16 (lighter compartment)).

22. Regarding claim **30**, Shafer discloses a switch for turning on the fan (figure 1, element 108).

23. Regarding claim **33 and 34**, Shafer discloses a mechanical filter unit (i.e. fibrous filter) and an charcoal (i.e. activated carbon) absorption filter unit (col. 6, 52-68).

24. Regarding claim **38**, the device of Shafer has two means for generating aromatic substances. The first is the lighted tobacco (which inherently produces aromatic substances) and the second is the flavor contributing filter segment (col. 6, 52-68).

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25. Regarding claim **39**, Shafer discloses that the filters are closed off from the environment (within the housing) and are accessible and replaceable (col. 6, 37-45), via a removable closing valve (i.e. a removable panel; figure 1, element 104).

***Claim Rejections - 35 USC § 103***

26. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

27. Claims **19, 27, 28, 40, and 41** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer (US 5,388,595) as applied to claim 1 above.

28. Regarding claim **19**, the tobacco reservoir contains a removable cover (fig. 1, element 36) and a one way valve (38) with a number of openings provided in the housing provide an outside air feed. Shafer does not disclose locating the air feed on the cover. However it would have been obvious to one of ordinary skill in the art at the time of invention to locate the air feed on the housing or the cover as both would provide the same function and would merely represent an aesthetic design choice.

29. Regarding claim **27**, Shafer does not disclose the weight of the device. However, one of ordinary skill would select lightweight materials for a device that is designed to be portable and held in the hands or mouth. For instance one of ordinary skill would make the device of light weight metals or plastics (weighting less than 1 kg) and not choose heavier materials such as lead or cast iron. In addition, Shafer discloses that the case made be made of plastic (col. 9, 3-15).



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30. Regarding claim **28**, Shafer does not disclose a compartment for additional tobacco, however, it is notoriously well known in the art to package additional tobacco with devices used for smoking them (i.e. pipes packaged with pipe tobacco in a compartment).

31. Regarding claim **40**, Shafer illustrates one opening between the tobacco reservoir and the tobacco discharge, however, it would have been obvious to one of ordinary skill in the art at the time of invention to duplicate the openings because duplication would result in additional smoke transport, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

32. Regarding claim **41**, Shafer illustrates a first and second housing part with the first, curved housing part containing the tobacco reservoir and air intake (figure 1, 36 and 38), and the discharge filter and displacing means are in a section part connected to the first. However, the location of these items is considered design choice and would not affect the function of operation of the device.

33. Claims **31, 32, and 61-66** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer (US 5,388,595) as applied to claim 30 above, in further view of Counts et al. (US 5,954,979).

34. Regarding claim **31**, the smoking device of Shafer is manually operated and does not contain sensors or automatic switching circuitry. However, it is well known in the art to automate the functions of manual devices, including smoking appliances. For

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example, Counts et al. disclose a electric smoking system that contains a flow sensor (an indirect smoke detector) that triggers the desired functions in the device. In teh case of Counts et al. the desired action is heating of the tobacco. It would have been obvious to one of ordinary skill in the art at the time of invention to use indirect smoke sensors to trigger desired functions of the smoking system. In the case of Shafer, it would have been obvious to one of ordinary skill to use the sensor of Counts et al. to respond to smoke traveling through the channels (i.e. either via puff or convection) to trigger various switches described by Shafer, such activating SW3, which activates the fan and one of the valves to empty the smoke discharge (col. 9, 37-49). The results of using sensors to activate switches would have been within the level of one of ordinary skill in the art and the results would have been predictable.

35. Regarding claim **61**, claim 61 incorporates elements addressed in the rejections of claim 1 above and claim 31 immediately above.

36. Regarding claim **32**, the smoking device of Shafer is manually operated and does not contain sensors or automatic switching circuitry. However, it is well known in the art to automate the functions of manual devices, including smoking appliances. For example, Counts et al. disclose that it is known to use temperature sensors to control that triggers the desired functions in the device (col. 2, 14-19). In the case of the prior art described by Counts et al., the temperature sensor controls heating of tobacco. In the case of Shafer, it would have been obvious to one of ordinary skill to use the sensor of Counts et al. to respond to heating of the tobacco to trigger various switches described by Shafer, such activating SW3, which activates the fan and one of the valves

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to empty the smoke discharge (col. 9, 37-49). The results of using sensors to activate switches would have been within the level of one of ordinary skill in the art and the results would have been predictable.

37. Regarding claim **62**, claim 61 incorporates elements addressed in the rejections of claim 1 above and claim 32 immediately above.

38. Regarding claim **63, 64, 65, and 66**, see rejections of claims 22, 26, 27, and 41, respectively, above.

39. Claims **35, 37, 54, 59, and 60** rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer (US 5,388,595) as applied to claims 33, 34, , in further view of Lidums (US 3,416,540).

40. Regarding claims **35, 37, 54, and 59**, Shafer discloses several different filter elements but does not disclose an electrostatic filter element. However, electrostatic filter elements are well known in the art. For instance, Lidums discloses an electrostatic filter element for a cigarette that uses cathodes and anodes to ionize some of the smoke components for collection (col. 3, line 75—col. 4, line 42). It would have been obvious to one of ordinary skill in the art at the time of invention to use the electrostatic filtration system of Lidums in the smoking system of Shafer because Lidums teaches that the electrostatic precipitator can be used in conjunction with other filter materials such as fibers and activated carbon (mechanical and adsorbent filters), and that the electrostatic system can remove very small particles while the fibers and activated carbon remove larger particles and vapor phase constituents respectively. Therefor

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using the electrostatic filter of Lidums would have been within the level of one of ordinary skill and would have achieved predictable results (lower particulates).

41. Regarding claim **60**, please see the rejection of claims **10, 11, 12, 14, and 15** above.

42. Claims **55-58** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer (US 5,388,595) and Lidums (US 3,416,540) as applied to claim 54 above, in further view of Wallace (US 4,790,332).

43. Shafer and Lidums do not specifically teach fabric with "small mesh width" or a HEPA filter. However, Wallace disclose a tobacco filter system that uses a HEPA filter to remove particulates from the tobacco smoke (col. 5, 5-18) and is shown extending transversely of the direction of the smoke displacement. It would have been obvious to one of ordinary skill in the art at the time of invention to use a HEPA filter, as disclosed in Wallace, in a similar appliance to filter cigarette smoke being released into the environment. In addition it would have been obvious to one of ordinary skill in the art at the time of invention that particles in cigarette smoke that are removed by a high performance filter, such as a HEPA filter, would only be removed by a filter with small passageways (i.e. small mesh width) that would filter out the small particles entrained in the smoke.

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44. Claim **36** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shafer (US 5,388,595) as applied to claims 33 or 34 above, in further view of Noguchi et al. (US 4,195,649).

45. Shafer does not disclose an ozone filter unit, however, Noguchi et al. disclose an activated carbon fiber that adsorbs ozone that is useful in a cigarette filter. It would have been obvious to one of ordinary skill in the art at the time of invention to use the activated carbon fibers of Noguchi et al. in the filter system of Shafer to reduce the amount of ozone emitted to the environment because it is notoriously well known that ozone is harmful to human health.

#### ***Allowable Subject Matter***

46. Claim **53** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

47. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art as cited in the rejections above does not disclose or suggest the second discharge channel being arranged on the side wall of the channel from the tobacco reservoir to the mouthpiece.

#### ***Conclusion***

48. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. FELTON whose telephone number is (571)272-4805. The examiner can normally be reached on Monday to Friday, 7:30 AM to 4:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/MICHAEL J FELTON/  
Examiner, Art Unit 1747

/Richard Crispino/  
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